BI

10

(CURRENTLY AMENDED) A compound of Formula (I)

$$R^{1}$$
 X— $(CR^{6}R^{7})$ - $(CR^{8}R^{9})_{m}$ - $(CR^{10}R^{11})_{l}$ - $(CR^{12}R^{3})$ - $HN$ 
 $(CR^{14}R^{14a})_{n}$ 
 $(CR^{14}R^{14a})_{n}$ 
 $(CR^{15}R^{15})_{n}$ 

- 5 or a stereoisomer or a pharmaceutically acceptable salt thereof, wherein:
  - Z is selected from a bond, -C(0)-, -C(0)NH-, -C(S)NH-,  $-SO_2-$ , and  $-SO_2NH-$ ;

X is selected from -NR<sup>17</sup>-, -O-, -S-, and -CHR<sup>16</sup>NR<sup>17</sup>-;

X is selected from  $-NR^{17}$ -, -O-, and  $-CHR^{16}NR^{17}$ -;

- 15  $R^1$  is selected from a  $C_{6-10}$  aryl group substituted with 0-5  $R^4$  and a 5-10 membered heteroaryl system containing 1-4 heteroatoms selected from N, O, and  $S_7$  substituted with 0-3  $R^4$ ;
- 20  $R^2$  is selected from a  $C_{6-10}$  aryl group substituted with 0-5  $R^5$  and a 5-10 membered heteroaryl system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^5$ ;
- 25 R³ is selected from H,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{3d}$ ,  $(CRR)_qS(O)_pR^{3d}$ ,  $(CRR)_rC(O)R^{3b}$ ,  $(CRR)_qNR^{3a}R^{3a}$ ,  $(CRR)_rC(O)NR^{3a}R^{3a}$ ,  $(CRR)_rC(O)NR^{3a}OR^{3d}$ ,  $(CRR)_qSO_2NR^{3a}R^{3a}$ ,  $(CRR)_rC(O)OR^{3d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5 R³e, and

BI

10

a  $(CRR)_r$ -5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;

- 5 with the proviso that  $R^3$  is not H if  $R^6$  is H;
  - alternatively,  $R^3$  and  $R^{12}$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{3g}$ , a  $C_{5-6}$  lactam substituted with 0-2  $R^{3g}$ , or a  $C_{5-6}$  lactone substituted with 0-2  $R^{3g}$ ;
- $R^{3a}$ , at each occurrence, is independently selected from H, methyl substituted with 0-1  $R^{3c}$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{3e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{3e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{3e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{3e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;
- $R^{3b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{3e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{3e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{3e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{3e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;

BI

25

30

R<sup>3c</sup> is independently selected from  $-C(0)R^{3b}$ ,  $-C(0)OR^{3d}$ ,  $-C(0)NR^{3f}R^{3f}$ , and  $(CH_2)_r$ phenyl;

- $R^{3d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{3e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{3e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{3e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{3e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;
- $R^{3e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{3f}R^{3f}$ , and  $(CH_2)_rphenyl$ ;
- $R^{3f}$ , at each occurrence, is selected from H,  $C_{1-6}$ 20 alkyl, and  $C_{3-6}$  cycloalkyl;

  - R, at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl,  $(CHR)_rC(0)NR^{3a}R^{3a}$ , and

BI

 $(CHR)_rC(0)OR^{3d}$ , and  $(CH_2)_r$ phenyl substituted with  $R^{3e}$ ;

 $R^4$ , at each occurrence, is selected from  $C_{1-8}$  alkyl, 5  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, Br, I, F, NO<sub>2</sub>, CN,  $(CR'R')_rNR^{4a}R^{4a}$ ,  $(CR'R')_rOH$ ,  $(CR'R')_rO(CR'R')_rR^{4d}$ ,  $(CR'R')_rSH$ ,  $(CR'R')_rC(O)H$ ,  $(CR'R')_{r}S(CR'R')_{r}R^{4d}$ ,  $(CR'R')_{r}C(0)OH$ ,  $(CR'R')_{r}C(0)(CR'R')_{r}R^{4b}$ ,  $(CR'R')_{r}C(0)NR^{4a}R^{4a}$ ,  $(CR'R')_rNR^{4f}C(0)(CR'R')_rR^{4b}$ , 10  $(CR'R')_rC(O)O(CR'R')_rR^{4d}$ ,  $(CR'R')_rOC(O)(CR'R')_rR^{4b}$ ,  $(CR'R')_{r}NR^{4}fC(0)O(CR'R')_{r}R^{4}d$ ,  $(CR'R')_{r}OC(0)NR^{4}aR^{4}a$ ,  $(CR'R')_rNR^{6a}C(S)NR^{6a}(CR'R')_rR^{6d}$ ,  $(CR'R')_rNR^{4a}C(O)NR^{4a}R^{4a}$ ,  $(CR'R')_rC(=NR^{4f})NR^{4a}R^{4a}$ ,  $(CR'R')_{r}NHC = NR^{4f}NR^{4f}R^{4f}$ ,  $(CR'R')_{r}S(O)_{p}(CR'R')_{r}R^{4b}$ , 15  $(CR'R')_rS(O)_2NR^{4a}R^{4a}$ ,  $(CR'R')_rNR^{6f}S(O)_2NR^{6a}R^{6a}$ ,  $(CR'R')_rNR^{4f}S(0)_2(CR'R')_rR^{4b}$ ,  $C_{1-6}$  haloalkyl,  $C_{2-8}$ alkenyl substituted with 0-3 R',  $C_{2-8}$  alkynyl substituted with 0-3 R', and (CR'R') phenyl substituted with 0-3 R4e; 20

alternatively, two  $R^4$  on adjacent atoms on  $R^1$  may join to form a cyclic acetal;

25  $R^{4a}$ , at each occurrence, is independently selected from H, methyl substituted with  $0-1R^{4g}$ ,  $C_{2-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted

31

with 0-5  $R^{4e}$ , and a  $(CH_2)_r$ -5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2  $R^{4e}$ ;

- $R^{4b}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , a  $(CH_2)_rC_{3-6}$  carbocyclic residue substituted with 0-3  $R^{4e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2  $R^{4e}$ ;
- 15  $R^{4d}$ , at each occurrence, is selected from  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , methyl,  $CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{4e}$ , a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{4e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{4e}$ ;
- $R^{4e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{4f}R^{4f}$ , and  $(CH_2)_rphenyl$ ;



 $\cdot$  R<sup>4f</sup>, at each occurrence, is selected from H, C<sub>1-5</sub> alkyl, and C<sub>3-6</sub> cycloalkyl, and phenyl;

 $R^{4g}$  is independently selected from  $-C(0)R^{4b}$ ,  $-C(0)OR^{4d}$ , 5  $-C(0)NR^{4f}R^{4f}$ , and  $(CH_2)_r$ phenyl;

 $R^5$ , at each occurrence, is selected from  $C_{1-8}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, Br, I, F, NO<sub>2</sub>, CN,  $(CR'R')_rNR^{5a}R^{5a}$ ,  $(CR'R')_rOH$ ,  $(CR'R')_rO(CR'R')_rR^{5d}$ ,  $(CR'R')_rSH$ ,  $(CR'R')_rC(O)H$ , 10  $(CR'R')_rS(CR'R')_rR^{5d}$ ,  $(CR'R')_rC(O)OH$ ,  $(CR'R')_{r}C(0)(CR'R')_{r}R^{5b}$ ,  $(CR'R')_{r}C(0)NR^{5a}R^{5a}$ ,  $(CR'R')_rNR^{5f}C(0)(CR'R')_rR^{5b}$ ,  $(CR'R')_rC(0)O(CR'R')_rR^{5d}$ ,  $(CR'R')_rOC(0)(CR'R')_rR^{5b}$ ,  $CR'R')_rNR^{5f}C(O)O(CR'R')_rR^{5d}$ ,  $(CR'R')_rOC(O)NR^{5a}R^{5a}$ , 15  $(CR'R')_rNR^{5a}C(O)NR^{5a}R^{5a}$ ,  $(CR'R')_rC(=NR^{5f})NR^{5a}R^{5a}$ ,  $(CR'R')_rNHC (=NR^{5f})NR^{5f}R^{5f}$ ,  $(CR'R')_rS(0)_p(CR'R')_rR^{5b}$ ,  $(CR'R')_rS(0)_2NR^{5a}R^{5a}$ ,  $(CR'R')_rNR^{5a}S(0)_2NR^{5a}R^{5a}$ ,  $(CR'R')_rNR^{5f}S(O)_2(CR'R')_rR^{5b}$ ,  $C_{1-6}$  haloalkyl,  $C_{2-8}$ 20 alkenyl substituted with 0-3 R',  $C_{2-8}$  alkynyl substituted with 0-3 R', and  $(CR'R')_r$ phenyl substituted with 0-3 R<sup>5e</sup>;

alternatively, two  $R^5$  on adjacent atoms on  $R^2$  may join to form a cyclic acetal;

 $R^{5a}$ , at each occurrence, is independently selected from H, methyl substituted with 0-1  $R^{5g}$ ,  $C_{2-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted



5

with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{5e}$ , and a  $(CH_2)_r$ -5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R<sup>5e</sup>;

R<sup>5b</sup>, at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted with 0-2  $\ensuremath{\text{R}^{\text{5e}}}\xspace,\ \ensuremath{\text{C}_{3\text{-8}}}\xspace$  alkynyl substituted 10 with 0-2  $R^{5e}$ , a  $(CH_2)_rC_{3-6}$  carbocyclic residue substituted with 0-3  $R^{5e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with  $0-2 R^{5e}$ ;

15

R<sup>5d</sup>, at each occurrence, is independently selected from  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , methyl,  $CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{5e}$ , a  $(CH_2)_r$ - $C_{3-10}$ 20 carbocyclic residue substituted with  $0-3~R^{5e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>5e</sup>;

25

30

 $R^{5e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, F, Br, I, CN, NO<sub>2</sub>,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$ alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{5f}R^{5f}$ , and (CH<sub>2</sub>) rphenyl;

 $\mathcal{B}^{L}$ 

25

 $R^{5f}$ , at each occurrence, is selected from H,  $C_{1-5}$  alkyl, and  $C_{3-6}$  cycloalkyl, and phenyl;

- 5  $R^{5g}$  is independently selected from  $-C(0)R^{5b}$ ,  $-C(0)OR^{5d}$ ,  $-C(0)NR^{5f}R^{5f}$ , and  $(CH_2)_r$ phenyl;
- R', at each occurrence, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, and  $(CH_2)_r$ phenyl substituted with  $R^{5e}$ ;
- R<sup>6</sup>, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{6d}$ ,  $(CRR)_qS(0)_pR^{6d}$ ,  $(CRR)_rC(0)R^{6b}$ ,  $(CRR)_rNR^{6a}R^{6a}$ ,  $(CRR)_rC(0)NR^{6a}R^{6a}$ ,  $(CRR)_rC(0)NR^{6a}OR^{6d}$ ,  $(CRR)_sO_2NR^{6a}R^{6a}$ ,  $(CRR)_rC(0)OR^{6d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{6e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{6e}$ ;
  - alternatively,  $R^6$  and  $R^7$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{6g}$ , a 5-6 membered ring lactam substituted with 0-2  $R^{6g}$ , or a 5-6 membered ring lactone substituted with 0-2  $R^{6g}$ ;
  - $R^{6a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{6e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{6e}$ ,  $C_{3-8}$  alkynyl

31

5

substituted with 0-3  $R^{6e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{6e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3  $R^{6e}$ ;

 $R^{6b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{6e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{6e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{6e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{6e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{6e}$ ;

- $R^{6d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{6e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{6e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{6e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{6e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{6e}$ ;
- 25  $R^{6e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{6f}R^{6f}$ , and  $(CH_2)_rphenyl$ ;

BI

R<sup>6f</sup>, at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;

- R<sup>6g</sup> is selected from (CHR)<sub>q</sub>OH, (CHR)<sub>q</sub>SH, (CHR)<sub>q</sub>OR<sup>6d</sup>,  $(CHR)_qS(0)_pR^{6d}, (CHR)_rC(0)R^{6b}, (CHR)_qNR^{6a}R^{6a}, \\ (CHR)_rC(0)NR^{6a}R^{6a}, (CHR)_rC(0)NR^{6a}OR^{6d}, \\ (CHR)_qSO_2NR^{6a}R^{6a}, (CHR)_rC(0)OR^{6d}, and a (CHR)_r-C_{3-10} \\ carbocyclic residue substituted with 0-5 R<sup>6e</sup>;$
- 10  $R^7$ , is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{7d}$ ,  $(CRR)_qS(0)_pR^{7d}$ ,  $(CRR)_rC(0)R^{7b}$ ,  $(CRR)_rNR^{7a}R^{7a}$ ,  $(CRR)_rC(0)NR^{7a}R^{7a}$ ,  $(CRR)_rC(0)NR^{7a}OR^{7d}$ ,  $(CRR)_qSO_2NR^{7a}R^{7a}$ ,  $(CRR)_rC(0)OR^{7d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{7e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{7e}$ ;
- 20  $R^{7a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{7e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{7e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{7e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{7e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3  $R^{7e}$ ;

BI

- $R^{7b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{7e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{7e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{7e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{7e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{7e}$ ;
- 10  $R^{7d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{7e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{7e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{7e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{7e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{7e}$ ;
- $R^{7e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{7f}R^{7f}$ , and  $(CH_2)_rphenyl$ ;
- 25  $R^{7f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- R<sup>8</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl, (CRR)<sub>r</sub>OH, (CRR)<sub>r</sub>SH, (CRR)<sub>r</sub>OR<sup>8d</sup>, (CRR)<sub>r</sub>S(O)<sub>p</sub>R<sup>8d</sup>, (CRR)<sub>r</sub>C(O)R<sup>8b</sup>, (CRR)<sub>r</sub>NR<sup>8a</sup>R<sup>8a</sup>,

BI

5

10

(CRR)  $_{r}$ C(O)NR<sup>8a</sup>R<sup>8a</sup>, (CRR)  $_{r}$ C(O)NR<sup>8a</sup>OR<sup>8d</sup>, (CRR)  $_{r}$ SO<sub>2</sub>NR<sup>8a</sup>R<sup>8a</sup>, (CRR)  $_{r}$ C(O)OR<sup>8d</sup>, a (CRR)  $_{r}$ -C<sub>3-10</sub> carbocyclic residue substituted with 0-5 R<sup>8e</sup>, and a (CRR)  $_{r}$ -5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>8e</sup>;

- alternatively,  $R^8$  and  $R^9$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{8g}$ , a 5-6 membered ring lactam substituted with 0-2  $R^{8g}$ , or a 5-6 membered ring lactone substituted with 0-2  $R^{8g}$ ;
- $R^{8a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{8e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{8e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{8e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{8e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3  $R^{8e}$ ;
- $R^{8b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{8e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{8e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{8e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{8e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{8e}$ ;

BI

- $R^{8d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{8e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{8e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{8e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{8e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{8e}$ ;
- 10  $R^{8e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{8f}R^{8f}$ , and  $(CH_2)_rphenyl$ ;
- $R^{8f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- R<sup>8g</sup> is selected from (CHR)<sub>q</sub>OH, (CHR)<sub>q</sub>SH, (CHR)<sub>q</sub>OR<sup>8d</sup>,  $(CHR)_qS(0)_pR^{8d}, (CHR)_rC(0)R^{8b}, (CHR)_qNR^{8a}R^{8a}, \\ (CHR)_rC(0)NR^{8a}R^{8a}, (CHR)_rC(0)NR^{8a}OR^{8d}, \\ (CHR)_qSO_2NR^{8a}R^{8a}, (CHR)_rC(0)OR^{8d}, and a (CHR)_r-C_{3-10} \\ carbocyclic residue substituted with 0-5 R<sup>8e</sup>;$
- 25 R<sup>9</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{9d}$ ,  $(CRR)_rS(0)_pR^{9d}$ ,  $(CRR)_rC(0)R^{9b}$ ,  $(CRR)_rNR^{9a}R^{9a}$ ,  $(CRR)_rC(0)NR^{9a}R^{9a}$ ,  $(CRR)_rC(0)NR^{9a}R^{9d}$ ,  $(CRR)_rC(0)R^{9a}R^{9a}$ ,  $(CRR)_rC(0)R^{9a}R^{9a}$ ,  $(CRR)_rC(0)R^{9a}R^{9a}$ ,  $(CRR)_rC(0)R^{9d}$ , a  $(CRR)_r-C_{3-10}$

carbocyclic residue substituted with  $0-5\ R^{9e}$ , and a  $(CRR)_r$ -5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>9e</sup>;

5

10

R<sup>9a</sup>, at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{9e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{9e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{9e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with  $0-5 \text{ R}^{9e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with  $0-3 R^{9e}$ ;

15

R<sup>9b</sup>, at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{9e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{9e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{9e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{9e}$ , and a  $(CH_2)_r$ -5-6 . 20 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with  $0-3 R^{9e}$ ;

R<sup>9d</sup>, at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3 25  $R^{9e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{9e}$ ,  $C_{3-6}$ alkynyl substituted with 0-3  $R^{9e}$ , a  $C_{3-10}$ carbocyclic residue substituted with  $0-3~R^{9e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system



containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{9e}$ ;

- $R^{9e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{9f}R^{9f}$ , and  $(CH_2)_rphenyl$ ;
- 10  $R^{9f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- R<sup>10</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{10d}$ ,  $(CRR)_rS(0)_pR^{10d}$ ,  $(CRR)_rC(0)R^{10b}$ ,  $(CRR)_rNR^{10a}R^{10a}$ ,  $(CRR)_rC(0)NR^{10a}R^{10a}$ ,  $(CRR)_rC(0)NR^{10a}OR^{10d}$ ,  $(CRR)_rSO_2NR^{10a}R^{10a}$ ,  $(CRR)_rC(0)OR^{10d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{10e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{10e}$ ;
- alternatively,  $R^{10}$  and  $R^{11}$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{10g}$ , a 5-6 membered ring lactam substituted with 0-2  $R^{10g}$ , or a 5-6 membered ring lactone substituted with 0-2  $R^{10g}$ ;
- $R^{10a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3

BI

5

 $R^{10e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{10e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{10e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{10e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{10e}$ ;

- R<sup>10b</sup>, at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{10e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{10e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{10e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{10e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{10e}$ ;
- $R^{10d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{10e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{10e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{10e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{10e}$ , and a  $(CH_2)_r-5-6$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and 25 S, substituted with 0-3  $R^{10e}$ ;
  - $R^{10e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,

BI

10

 $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{10f}R^{10f}$ , and  $(CH_2)_rphenyl$ ;

 $R^{10f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;

R<sup>10g</sup> is selected from (CHR) $_q$ OH, (CHR) $_q$ SH, (CHR) $_q$ OR<sup>10d</sup>, (CHR) $_q$ S(O) $_p$ R<sup>10d</sup>, (CHR) $_r$ C(O)R<sup>10b</sup>, (CHR) $_q$ NR<sup>10a</sup>R<sup>10a</sup>, (CHR) $_r$ C(O)NR<sup>10a</sup>R<sup>10a</sup>, (CHR) $_r$ C(O)NR<sup>10a</sup>OR<sup>10d</sup>, (CHR) $_q$ SO<sub>2</sub>NR<sup>10a</sup>R<sup>10a</sup>, (CHR) $_r$ C(O)OR<sup>10d</sup>, and a (CHR) $_r$ -C<sub>3-10</sub> carbocyclic residue substituted with 0-5 R<sup>10e</sup>;

R<sup>11</sup>, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{11d}$ ,  $(CRR)_rS(O)_pR^{11d}$ ,  $(CRR)_rC(O)R^{11b}$ ,  $(CRR)_rNR^{11a}R^{11a}$ ,  $(CRR)_rC(O)NR^{11a}R^{11a}$ ,  $(CRR)_rC(O)NR^{11a}OR^{11d}$ ,  $(CRR)_rSO_2NR^{11a}R^{11a}$ ,  $(CRR)_rC(O)OR^{11d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{11e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{11e}$ ;

R<sup>11a</sup>, at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{11e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{11e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{11e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{11e}$ , and a  $(CH_2)_r-5-10$ 

BI

membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{11e}$ ;

- 5  $R^{11b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{11e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{11e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{11e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{11e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{11e}$ ;
- R<sup>11d</sup>, at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3 R<sup>11e</sup>,  $C_{3-6}$  alkenyl substituted with 0-3 R<sup>11e</sup>,  $C_{3-6}$  alkynyl substituted with 0-3 R<sup>11e</sup>, a  $C_{3-10}$  carbocyclic residue substituted with 0-3 R<sup>11e</sup>, and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>11e</sup>;
- $R^{11e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{11f}R^{11f}$ , and  $(CH_2)_rphenyl$ ;
- $R^{11f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;

BI

5

10

R<sup>12</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{12d}$ ,  $(CRR)_qS(0)_pR^{12d}$ ,  $(CRR)_rC(0)R^{12b}$ ,  $(CRR)_rNR^{12a}R^{12a}$ ,  $(CRR)_rC(0)NR^{12a}R^{12a}$ ,  $(CRR)_rC(0)NR^{12a}OR^{12d}$ ,  $(CRR)_qSO_2NR^{12a}R^{12a}$ ,  $(CRR)_rC(0)OR^{12d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{12e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;

 $R^{12a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{12e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{12e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{12e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{12e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;

 $R^{12b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{12e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{12e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{12e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{12e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;



5

- R<sup>12d</sup>, at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3 R<sup>12e</sup>,  $C_{3-6}$  alkenyl substituted with 0-3 R<sup>12e</sup>,  $C_{3-6}$  alkynyl substituted with 0-3 R<sup>12e</sup>, a  $C_{3-10}$  carbocyclic residue substituted with 0-3 R<sup>12e</sup>, and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>12e</sup>;
- 10  $R^{12e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{12f}R^{12f}$ , and  $(CH_2)_rphenyl$ ;
- $R^{12f}$ , at each occurrence, is selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- $R^{14}$  and  $R^{14a}$  are independently selected from H, and  $C_{1-}$ 20 4alkyl substituted with 0-1  $R^{14b}$ ,
  - alternatively,  $R^{14}$  and  $R^{14a}$  can join to form a  $C_{3-6}$  cycloalkyl;
- 25  $R^{14b}$ , at each occurrence, is independently selected from -OH, -SH, -NR<sup>14c</sup>R<sup>14c</sup>, -C(O)NR<sup>14c</sup>R<sup>14c</sup>, -NHC(O)R<sup>14c</sup> and phenyl;
  - $R^{14c}$  is selected from H,  $C_{1-4}$  alkyl and  $C_{3-6}$  cycloalkyl;



5

 $\cdot$  R<sup>15</sup> is selected from H, C<sub>1-4</sub> alkyl, and C<sub>3-6</sub> cycloalkyl;

- $R^{16}$  is selected from H,  $C_{1-4}$  alkyl substituted with 0-3  $R^{16a}$ , and  $C_{3-6}$  cycloalkyl substituted with 0-3  $R^{16a}$ ;
- $R^{16a}$  is selected from  $C_{1-4}$  alkyl, -OH, -SH, -NR<sup>16c</sup>R<sup>16c</sup>, -C(O)NR<sup>16c</sup>R<sup>16c</sup>, and -NHC(O)R<sup>16c</sup>;
- 10  $R^{16c}$  is selected from H,  $C_{1-4}$  alkyl and  $C_{3-6}$  cycloalkyl;
  - $R^{17}$  is selected from H,  $C_{1-4}$  alkyl, and  $C_{3-4}$  cycloalkyl;
  - n is selected from 1 and 2;
- 15
   l is selected from 0 and 1;
  - m is selected from 0 and 1;
- p, at each occurrence, is selected from 0, 1, or 2;
  q, at each occurrence, is selected from 1, 2, 3, or 4;
  and
- 25 r, at each occurrence, is selected from 0, 1, 2, 3, or 4.
  - 2. (CURRENTLY AMENDED) A compound of claim 1, wherein

BI

. Z is selected from a bond, -C(0)-, -C(0)NH-, -C(S)NH-,  $-SO_2-$ , and  $-SO_2NH-$ ;

X is selected from -NR<sup>17</sup>-, -O-, -S-, and -CHR<sup>16</sup>NR<sup>17</sup>-;

5

10

30

X is selected from  $-NR^{17}$ -, -O-, and  $-CHR^{16}NR^{17}$ -;

- $R^1$  is selected from a  $C_{6-10}$  aryl group substituted with 0-5  $R^4$  and a 5-10 membered heteroaryl system containing 1-4 heteroatoms selected from N, O, and  $S_7$  substituted with 0-3  $R^4$ ;
- $R^2$  is selected from a  $C_{6-10}$  aryl group substituted with 0-5  $R^5$  and a 5-10 membered heteroaryl system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^5$ ;
- R<sup>3</sup> is selected from  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{3d}$ ,  $(CRR)_qS(O)_pR^{3d}$ ,  $(CRR)_rC(O)R^{3b}$ ,  $(CRR)_qNR^{3a}R^{3a}$ ,  $(CRR)_rC(O)NR^{3a}R^{3a}$ ,  $(CRR)_rC(O)NR^{3a}OR^{3d}$ ,  $(CRR)_qSO_2NR^{3a}R^{3a}$ ,  $(CRR)_rC(O)OR^{3d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5 R<sup>3e</sup>, and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>3e</sup>;
  - alternatively,  $R^3$  and  $R^{12}$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{3g}$ , a  $C_{5-6}$  lactam substituted with 0-2  $R^{3g}$ , or a  $C_{5-6}$  lactone substituted with 0-2  $R^{3g}$ ;



5

10

 $R^{3a}$ , at each occurrence, is independently selected from H, methyl substituted with 0-1  $R^{3c}$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{3e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{3e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{3e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{3e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;

 $R^{3b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{3e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{3e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{3e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{3e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;

20

 $R^{3c}$  is independently selected from  $-C(0)R^{3b}$ ,  $-C(0)OR^{3d}$ ,  $-C(0)NR^{3f}R^{3f}$ , and  $(CH_2)_r$ phenyl;

 $R^{3d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{3e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{3e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{3e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{3e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system



containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{3e}$ ;

- $R^{3e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl,  $C_{1}$ ,  $E_{1}$ ,  $E_{1}$ ,  $E_{2}$ ,  $E_{3}$ ,  $E_{1}$ ,  $E_{2}$ ,  $E_{3}$ ,  $E_{3}$ ,  $E_{3}$ ,  $E_{1}$ ,  $E_{2}$ ,  $E_{3}$ ,  $E_{$
- 10  $R^{3f}$ , at each occurrence, is selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- $R^{3g} \text{ is selected from (CHR)}_{q}OH, \text{ (CHR)}_{q}SH, \text{ (CHR)}_{q}OR^{3d}, \\ \text{ (CHR)}_{q}S(O)_{p}R^{3d}, \text{ (CHR)}_{\pm}C(O)R^{3b}, \text{ (CHR)}_{q}NR^{3a}R^{3a}, \\ \text{ (CHR)}_{\pm}C(O)NR^{3a}R^{3a}, \text{ (CHR)}_{\pm}C(O)NR^{3a}OR^{3d}, \\ \text{ (CHR)}_{q}SO_{2}NR^{3a}R^{3a}, \text{ (CHR)}_{\pm}C(O)OR^{3d}, \text{ and a (CHR)}_{\pm}-C_{3-10} \\ \text{ carbocyclic residue substituted with 0-5} R^{3e};$
- R, at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6} \text{ cycloalkyl, } (CHR)_rC(0)NR^{3a}R^{3a}, \text{ and } (CHR)_rC(0)OR^{3d}, \text{ and } (CH_2)_r\text{phenyl substituted with } R^{3e};$
- 25  $R^4$ , at each occurrence, is selected from  $C_{1-8}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, Br, I, F,  $NO_2$ , CN,  $(CR'R')_rNR^{4a}R^{4a}$ ,  $(CR'R')_rOH$ ,  $(CR'R')_rO(CR'R')_rR^{4d}$ ,  $(CR'R')_rSH$ ,  $(CR'R')_rC(O)H$ ,  $(CR'R')_rS(CR'R')_rR^{4d}$ ,  $(CR'R')_rC(O)OH$ ,

BI

5

10

alternatively, two  $R^4$  on adjacent atoms on  $R^1$  may join to form a cyclic acetal;

 $R^{4a}$ , at each occurrence, is independently selected from H, methyl substituted with  $0-1R^{4g}$ ,  $C_{2-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{4e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2  $R^{4e}$ ;

 $R^{4b}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2

BI

5

15

 $R^{5e}$ , a  $(CH_2)_rC_{3-6}$  carbocyclic residue substituted with 0-3  $R^{4e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2  $R^{4e}$ ;

- $R^{4d}$ , at each occurrence, is selected from  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , methyl,  $CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{4e}$ , a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{4e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{4e}$ ;
- $R^{4e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{4f}R^{4f}$ , and  $(CH_2)_rphenyl$ ;
  - $R^{4f}$ , at each occurrence, is selected from H,  $C_{1-5}$  alkyl, and  $C_{3-6}$  cycloalkyl, and phenyl;
- 25  $R^{4g}$  is independently selected from  $-C(0)R^{4b}$ ,  $-C(0)OR^{4d}$ ,  $-C(0)NR^{4f}R^{4f}$ , and  $(CH_2)_r$ phenyl;
- $R^5$ , at each occurrence, is selected from  $C_{1-8}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl,  $C_{1}$  Br, I, F,  $NO_2$ , CN,  $(CR'R')_rNR^{5a}R^{5a}$ ,  $(CR'R')_rOH$ ,

BI

5

10

 $(CR'R')_{r}O(CR'R')_{r}R^{5d}, \ (CR'R')_{r}SH, \ (CR'R')_{r}C(O)H, \\ (CR'R')_{r}S(CR'R')_{r}R^{5d}, \ (CR'R')_{r}C(O)OH, \\ (CR'R')_{r}C(O)(CR'R')_{r}R^{5b}, \ (CR'R')_{r}C(O)NR^{5a}R^{5a}, \\ (CR'R')_{r}NR^{5f}C(O)(CR'R')_{r}R^{5b}, \\ (CR'R')_{r}C(O)O(CR'R')_{r}R^{5d}, \ (CR'R')_{r}OC(O)(CR'R')_{r}R^{5b}, \\ (CR'R')_{r}NR^{5f}C(O)O(CR'R')_{r}R^{5d}, \ (CR'R')_{r}OC(O)NR^{5a}R^{5a}, \\ (CR'R')_{r}NR^{5a}C(O)NR^{5a}R^{5a}, \ (CR'R')_{r}C(=NR^{5f})NR^{5a}R^{5a}, \\ (CR'R')_{r}NHC(=NR^{5f})NR^{5f}R^{5f}, \ (CR'R')_{r}S(O)_{p}(CR'R')_{r}R^{5b}, \\ (CR'R')_{r}S(O)_{2}NR^{5a}R^{5a}, \ (CR'R')_{r}NR^{5a}S(O)_{2}NR^{5a}R^{5a}, \\ (CR'R')_{r}NR^{5f}S(O)_{2}(CR'R')_{r}R^{5b}, \ C_{1-6} \ haloalkyl, \ C_{2-8} \\ alkenyl \ substituted \ with \ 0-3 \ R', \ and \ (CR'R')_{r}phenyl \\ substituted \ with \ 0-3 \ R^{5e}; \\$ 

- 15 alternatively, two  $R^5$  on adjacent atoms on  $R^2$  may join to form a cyclic acetal;
- $R^{5a}$ , at each occurrence, is independently selected from H, methyl substituted with 0-1  $R^{5g}$ ,  $C_{2-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{5e}$ , and a  $(CH_2)_r$ -5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2  $R^{5e}$ ;
  - $R^{5b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkenyl

BI

5

substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , a  $(CH_2)_rC_{3-6}$  carbocyclic residue substituted with 0-3  $R^{5e}$ , and a  $(CH_2)_r-5-6$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2  $R^{5e}$ ;

- $R^{5d}$ , at each occurrence, is independently selected from  $C_{3-8}$  alkenyl substituted with 0-2  $R^{5e}$ ,  $C_{3-8}$  alkynyl substituted with 0-2  $R^{5e}$ , methyl,  $CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{5e}$ , a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{5e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{5e}$ ;
- $R^{5e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{5f}R^{5f}$ , and  $(CH_2)_rphenyl$ ;
  - $R^{5f}$ , at each occurrence, is selected from H,  $C_{1-5}$  alkyl, and  $C_{3-6}$  cycloalkyl, and phenyl;

25

 $R^{5g}$  is independently selected from  $-C(0)R^{5b}$ ,  $-C(0)OR^{5d}$ ,  $-C(0)NR^{5f}R^{5f}$ , and  $(CH_2)_r$ phenyl;



- R', at each occurrence, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, and  $(CH_2)_r$ phenyl substituted with  $R^{5e}$ ;
- 5 R<sup>6</sup>, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{6d}$ ,  $(CRR)_qS(0)_pR^{6d}$ ,  $(CRR)_rC(0)R^{6b}$ ,  $(CRR)_rNR^{6a}R^{6a}$ ,  $(CRR)_rC(0)NR^{6a}R^{6a}$ ,  $(CRR)_rC(0)NR^{6a}OR^{6d}$ ,  $(CRR)_sO_2NR^{6a}R^{6a}$ ,  $(CRR)_rC(0)OR^{6d}$ , a  $(CRR)_r-C_{3-10}$ 10 carbocyclic residue substituted with 0-5 R<sup>6e</sup>, and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>6e</sup>;
- alternatively,  $R^6$  and  $R^7$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{6g}$ , a 5-6 membered ring lactam substituted with 0-2  $R^{6g}$ , or a 5-6 membered ring lactone substituted with 0-2  $R^{6g}$ ;
- 20  $R^{6a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{6e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{6e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{6e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{6e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3  $R^{6e}$ ;



- $R^{6b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{6e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{6e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{6e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{6e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{6e}$ ;
- 10  $R^{6d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{6e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{6e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{6e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{6e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{6e}$ ;
- $R^{6e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{6f}R^{6f}$ , and  $(CH_2)_rphenyl$ ;
- 25  $R^{6f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
  - $R^{6g}$  is selected from  $(CHR)_qOH$ ,  $(CHR)_qSH$ ,  $(CHR)_qOR^{6d}$ ,  $(CHR)_qS(O)_pR^{6d}$ ,  $(CHR)_rC(O)R^{6b}$ ,  $(CHR)_qNR^{6a}R^{6a}$ ,  $(CHR)_rC(O)NR^{6a}R^{6a}$ ,  $(CHR)_rC(O)NR^{6a}OR^{6d}$ ,



25

 $(CHR)_qSO_2NR^{6a}R^{6a}$ ,  $(CHR)_rC(O)OR^{6d}$ , and a  $(CHR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{6e}$ ;

- R<sup>7</sup>, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{7d}$ ,  $(CRR)_qS(0)_pR^{7d}$ ,  $(CRR)_rC(0)R^{7b}$ ,  $(CRR)_rNR^{7a}R^{7a}$ ,  $(CRR)_rC(0)NR^{7a}R^{7a}$ ,  $(CRR)_rC(0)NR^{7a}OR^{7d}$ ,  $(CRR)_qSO_2NR^{7a}R^{7a}$ ,  $(CRR)_rC(0)OR^{7d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{7e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{7e}$ ;
- R<sup>7a</sup>, at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3 R<sup>7e</sup>,  $C_{3-8}$  alkenyl substituted with 0-3 R<sup>7e</sup>,  $C_{3-8}$  alkynyl substituted with 0-3 R<sup>7e</sup>,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5 R<sup>7e</sup>, and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3 R<sup>7e</sup>;
  - $R^{7b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{7e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{7e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{7e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{7e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4



heteroatoms selected from N, O, and S, substituted with 0-3  $\mbox{R}^{7e};$ 

- $R^{7d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{7e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{7e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{7e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{7e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{7e}$ ;
- $R^{7e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{7f}R^{7f}$ , and  $(CH_2)_rphenyl$ ;
- $R^{7f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- R<sup>8</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{8d}$ ,  $(CRR)_rS(O)_pR^{8d}$ ,  $(CRR)_rC(O)R^{8b}$ ,  $(CRR)_rNR^{8a}R^{8a}$ ,  $(CRR)_rC(O)NR^{8a}R^{8a}$ ,  $(CRR)_rC(O)NR^{8a}OR^{8d}$ ,  $(CRR)_rSO_2NR^{8a}R^{8a}$ ,  $(CRR)_rC(O)OR^{8d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{8e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{8e}$ ;

8

5

- alternatively,  $R^8$  and  $R^9$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{8g}$ , a 5-6 membered ring lactam substituted with 0-2  $R^{8g}$ , or a 5-6 membered ring lactone substituted with 0-2  $R^{8g}$ ;
- $R^{8a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{8e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{8e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{8e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{8e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3  $R^{8e}$ ;

15

- $R^{8b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{8e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{8e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{8e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{8e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{8e}$ ;
- 25  $R^{8d}$ , at each occurrence, is independently selected from H, methyl, -CF<sub>3</sub>, C<sub>2-6</sub> alkyl substituted with 0-3  $R^{8e}$ , C<sub>3-6</sub> alkenyl substituted with 0-3  $R^{8e}$ , C<sub>3-6</sub> alkynyl substituted with 0-3  $R^{8e}$ , a C<sub>3-10</sub> carbocyclic residue substituted with 0-3  $R^{8e}$ , and
- 30 a  $(CH_2)_r$ -5-6 membered heterocyclic system

BI

containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{8e}$ ;

- $R^{8e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{8f}R^{8f}$ , and  $(CH_2)_rphenyl$ ;
- 10  $R^{8f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- R<sup>8g</sup> is selected from (CHR)<sub>q</sub>OH, (CHR)<sub>q</sub>SH, (CHR)<sub>q</sub>OR<sup>8d</sup>, (CHR)<sub>q</sub>S(O)<sub>p</sub>R<sup>8d</sup>, (CHR)<sub>r</sub>C(O)R<sup>8b</sup>, (CHR)<sub>q</sub>NR<sup>8a</sup>R<sup>8a</sup>, (CHR)<sub>r</sub>C(O)NR<sup>8a</sup>R<sup>8a</sup>, (CHR)<sub>r</sub>C(O)NR<sup>8a</sup>OR<sup>8d</sup>, (CHR)<sub>q</sub>SO<sub>2</sub>NR<sup>8a</sup>R<sup>8a</sup>, (CHR)<sub>r</sub>C(O)OR<sup>8d</sup>, and a (CHR)<sub>r</sub>-C<sub>3-10</sub> carbocyclic residue substituted with 0-5 R<sup>8e</sup>;
- R<sup>9</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{9d}$ ,  $(CRR)_rS(O)_pR^{9d}$ ,  $(CRR)_rC(O)R^{9b}$ ,  $(CRR)_rNR^{9a}R^{9a}$ ,  $(CRR)_rC(O)NR^{9a}R^{9a}$ ,  $(CRR)_rC(O)NR^{9a}OR^{9d}$ ,  $(CRR)_rSO_2NR^{9a}R^{9a}$ ,  $(CRR)_rC(O)OR^{9d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{9e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{9e}$ ;
- $R^{9a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{9e}$ ,

5

25

30

## AMENDMENTS TO THE CLAIMS

 $C_{3-8}$  alkenyl substituted with 0-3  $R^{9e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{9e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{9e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, 0, and S, substituted with 0-3  $R^{9e}$ ;

- $R^{9b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{9e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{9e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{9e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{9e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{9e}$ ;
- $R^{9d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{9e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{9e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{9e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{9e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{9e}$ ;
  - $R^{9e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{9f}R^{9f}$ , and  $(CH_2)_rphenyl$ ;



 $R^{9f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;

- 5  $R^{10}$  is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{10d}$ ,  $(CRR)_rS(O)_pR^{10d}$ ,  $(CRR)_rC(O)R^{10b}$ ,  $(CRR)_rNR^{10a}R^{10a}$ ,  $(CRR)_rC(O)NR^{10a}R^{10a}$ ,  $(CRR)_rC(O)NR^{10a}OR^{10d}$ ,  $(CRR)_rSO_2NR^{10a}R^{10a}$ ,  $(CRR)_rC(O)OR^{10d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{10e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{10e}$ ;
- 15 alternatively,  $R^{10}$  and  $R^{11}$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{10g}$ , a 5-6 membered ring lactam substituted with 0-2  $R^{10g}$ , or a 5-6 membered ring lactone substituted with 0-2  $R^{10g}$ ;

20

25

 $R^{10a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{10e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{10e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{10e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{10e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{10e}$ ;

from C<sub>1-6</sub> alkyl substituted with 0-3 R<sup>10e</sup>, C<sub>2-8</sub> alkenyl substituted with 0-3 R<sup>10e</sup>, C<sub>2-8</sub> alkynyl substituted with 0-3 R<sup>10e</sup>, a (CH<sub>2</sub>)<sub>r</sub>-C<sub>3-6</sub>

carbocyclic residue substituted with 0-2 R<sup>10e</sup>, and a (CH<sub>2</sub>)<sub>r</sub>-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>10e</sup>;

- 10  $R^{10d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{10e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{10e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{10e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{10e}$ , and a  $(CH_2)_r-5-6$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{10e}$ ;
- $R^{10e}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{10f}R^{10f}$ , and  $(CH_2)_rphenyl$ ;
- 25  $R^{10f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- ${\rm R}^{10g} \ \, {\rm is \ selected \ \, from \ \, (CHR)_qOH, \ \, (CHR)_qSH, \ \, (CHR)_qOR^{10d}, }$   $(CHR)_qS(O)_pR^{10d}, \ \, (CHR)_rC(O)R^{10b}, \ \, (CHR)_qNR^{10a}R^{10a},$   $(CHR)_rC(O)NR^{10a}R^{10a}, \ \, (CHR)_rC(O)NR^{10a}OR^{10d},$

. (CHR) $_{q}$ SO $_{2}$ NR $^{10a}$ R $^{10a}$ , (CHR) $_{r}$ C(O)OR $^{10d}$ , and a (CHR) $_{r}$ - $C_{3-10} \text{ carbocyclic residue substituted with 0-5}$   $R^{10e};$ 

- 5 R<sup>11</sup>, is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_rOH$ ,  $(CRR)_rSH$ ,  $(CRR)_rOR^{11d}$ ,  $(CRR)_rS(O)_pR^{11d}$ ,  $(CRR)_rC(O)R^{11b}$ ,  $(CRR)_rNR^{11a}R^{11a}$ ,  $(CRR)_rC(O)NR^{11a}R^{11a}$ ,  $(CRR)_rC(O)NR^{11a}OR^{11d}$ ,  $(CRR)_rSO_2NR^{11a}R^{11a}$ ,  $(CRR)_rC(O)OR^{11d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{11e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{11e}$ ;
- 15  $R^{11a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{11e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{11e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{11e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{11e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{11e}$ ;
- 25  $R^{11b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{11e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{11e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{11e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{11e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system

Docket No. PH-7268

### AMENDMENTS TO THE CLAIMS

31

containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{11e}$ ;

- R<sup>11d</sup>, at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3 R<sup>11e</sup>,  $C_{3-6}$  alkenyl substituted with 0-3 R<sup>11e</sup>,  $C_{3-6}$  alkynyl substituted with 0-3 R<sup>11e</sup>, a  $C_{3-10}$  carbocyclic residue substituted with 0-3 R<sup>11e</sup>, and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R<sup>11e</sup>;
- R<sup>11e</sup>, at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN, NO<sub>2</sub>,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{11f}R^{11f}$ , and  $(CH_2)_rphenyl$ ;
- $R^{11f}$ , at each occurrence, is independently selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;
- R<sup>12</sup> is selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{12d}$ ,  $(CRR)_qS(0)_pR^{12d}$ ,  $(CRR)_rC(0)R^{12b}$ ,  $(CRR)_rNR^{12a}R^{12a}$ ,  $(CRR)_rC(0)NR^{12a}R^{12a}$ ,  $(CRR)_rC(0)NR^{12a}OR^{12d}$ ,  $(CRR)_qSO_2NR^{12a}R^{12a}$ ,  $(CRR)_rC(0)OR^{12d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{12e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;

BI

5

10

 $R^{12a}$ , at each occurrence, is independently selected from H, methyl,  $C_{2-6}$  alkyl substituted with 0-3  $R^{12e}$ ,  $C_{3-8}$  alkenyl substituted with 0-3  $R^{12e}$ ,  $C_{3-8}$  alkynyl substituted with 0-3  $R^{12e}$ ,  $(CH_2)_rC_{3-6}$  cycloalkyl, a  $(CH_2)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{12e}$ , and a  $(CH_2)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;

 $R^{12b}$ , at each occurrence, is independently selected from  $C_{1-6}$  alkyl substituted with 0-3  $R^{12e}$ ,  $C_{2-8}$  alkenyl substituted with 0-3  $R^{12e}$ ,  $C_{2-8}$  alkynyl substituted with 0-3  $R^{12e}$ , a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue substituted with 0-2  $R^{12e}$ , and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;

20

25

 $R^{12d}$ , at each occurrence, is independently selected from H, methyl,  $-CF_3$ ,  $C_{2-6}$  alkyl substituted with 0-3  $R^{12e}$ ,  $C_{3-6}$  alkenyl substituted with 0-3  $R^{12e}$ ,  $C_{3-6}$  alkynyl substituted with 0-3  $R^{12e}$ , a  $C_{3-10}$  carbocyclic residue substituted with 0-3  $R^{12e}$ , and a  $(CH_2)_r-5-6$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{12e}$ ;

BI

5

R<sup>12e</sup>, at each occurrence, is independently selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $C_{3-6}$  cycloalkyl, Cl, F, Br, I, CN, NO<sub>2</sub>,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH,  $-O-C_{1-6}$  alkyl, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{12f}R^{12f}$ , and  $(CH_2)_rphenyl$ ;

 $R^{12f}$ , at each occurrence, is selected from H,  $C_{1-6}$  alkyl, and  $C_{3-6}$  cycloalkyl;

10  $R^{14}$  and  $R^{14a}$  are independently selected from H, and  $C_{1-4}$ alkyl substituted with 0-1  $R^{14b}$ ,

alternatively,  $R^{14}$  and  $R^{14a}$  can join to form a  $C_{3-6}$  cycloalkyl;

15

 $R^{14b}$ , at each occurrence, is independently selected from -OH, -SH, -NR<sup>14c</sup>R<sup>14c</sup>, -C(O)NR<sup>14c</sup>R<sup>14c</sup>, -NHC(O)R<sup>14c</sup> and phenyl;

20  $R^{14c}$  is selected from H,  $C_{1-4}$  alkyl and  $C_{3-6}$  cycloalkyl;

 $R^{15}$  is selected from H,  $C_{1-4}$  alkyl, and  $C_{3-6}$  cycloalkyl;

 $R^{16}$  is selected from H,  $C_{1-4}$  alkyl substituted with 0-3  $R^{16a}$ , and  $C_{3-6}$  cycloalkyl substituted with 0-3  $R^{16a}$ ;

 $R^{16a}$  is selected from  $C_{1-4}$  alkyl, -OH, -SH, -NR<sup>16c</sup>R<sup>16c</sup>, -C(O)NR<sup>16c</sup>R<sup>16c</sup>, and -NHC(O)R<sup>16c</sup>;

BI

10

20

.  $R^{16c}$  is selected from H,  $C_{1-4}$  alkyl and  $C_{3-6}$  cycloalkyl;

 $R^{17}$  is selected from H,  $C_{1-4}$  alkyl, and  $C_{3-4}$  cycloalkyl;

- 5 n is selected from 1 and 2;
  - 1 is selected from 0 and 1;
- m is selected from 0 and 1;
- p, at each occurrence, is selected from 0, 1, or 2;
  - ${\bf q}$ , at each occurrence, is selected from 1, 2, 3, or 4; and
- r, at each occurrence, is selected from 0, 1, 2, 3, or 4.
  - 3. (ORIGINAL) The compound of claim 2, wherein:
- $R^{14}$  and  $R^{14a}$  are H;
  - $R^{15}$  is H; and
- 25 n is 1.
  - 4. (ORIGINAL) The compound of claim 3, wherein:
- $R^{16}$  is selected from H,  $C_{1-4}$  alkyl substituted with 0-1  $R^{16a}$ , wherein the alkyl is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, and s-

B

butyl, and  $C_{3-4}$  cycloalkyl substituted with 0-3  $R^{16a}$  wherein the cycloalkyl is selected from cyclopropyl and cyclobutyl;

- 5  $R^{16a}$  is selected from methyl, ethyl, propyl, i-propyl, -OH, -SH, -NR<sup>16c</sup>R<sup>16c</sup>, -C(O)NR<sup>16c</sup>R<sup>16c</sup>, and -NHC(O)R<sup>16c</sup>; and
- $R^{17}$  is selected from H, methyl, ethyl, propyl, and ipropyl.
  - 5. (ORIGINAL) The compound of claim 4, wherein:
  - $R^9$  and  $R^{11}$  are H; and

15

- $R^8$  and  $R^{10}$  are independently selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl, a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue wherein the carbocyclic residue is selected from cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, phenyl and naphthyl.
- 6. (CURRENTLY AMENDED) The compound of claim 5, wherein:
- 25 R³ is selected from  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{3d}$ ,  $(CRR)_qS(O)_pR^{3d}$ ,  $(CRR)_rC(O)R^{3b}$ ,  $(CRR)_qNR^{3a}R^{3a}$ ,  $(CRR)_rC(O)NR^{3a}R^{3a}$ ,  $(CRR)_rC(O)NR^{3a}OR^{3d}$ ,  $(CRR)_qSO_2NR^{3a}R^{3a}$ ,  $(CRR)_rC(O)OR^{3d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5 R³e, and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and

BI

5

10

S, substituted with 0-3 R<sup>3e</sup> wherein the heterocyclic system is selected from pyridinyl, thiophenyl, furanyl, indazolyl, benzothiazolyl, benzimidazolyl, benzothiophenyl, benzofuranyl, benzoxazolyl, benzisoxazolyl, quinolinyl, isoquinolinyl, imidazolyl, indolyl, indolinyl, isoindolyl, isothiadiazolyl, isoxazolyl, piperidinyl, pyrrazolyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, 1,2,4-triazolyl, 1,2,3-triazolyl, tetrazolyl, thiadiazolyl, thiazolyl, oxazolyl, pyrazinyl, and pyrimidinyl;

R<sup>6</sup> is selected from H, (CRR)<sub>q</sub>OH, (CRR)<sub>q</sub>SH, (CRR)<sub>q</sub>OR<sup>6d</sup>,  $(CRR)_{gS}(O)_{pR}^{6d}$ ,  $(CRR)_{rC}(O)_{R}^{6b}$ ,  $(CRR)_{gNR}^{6a}^{6a}$ , 15  $(CRR)_rC(O)NR^{6a}R^{6a}$ ,  $(CRR)_rC(O)NR^{6a}OR^{6d}$ ,  $(CRR)_{g}SO_{2}NR^{6a}R^{6a}$ ,  $(CRR)_{r}C(O)OR^{6d}$ , a  $(CRR)_{r}-C_{6-10}$ carbocyclic residue substituted with 0-5 R<sup>6e</sup>, and a  $(CRR)_r$ -5-10 membered heterocyclic system 20 containing 1-4 heteroatoms selected from N, O, and S. substituted with 0-6  $R^{6e}$  wherein the heterocyclic system is selected from pyridinyl, thiophenyl, furanyl, indazolyl, benzothiazolyl, benzimidazolyl, benzothiophenyl, benzofuranyl, 25 benzoxazolyl, benzisoxazolyl, quinolinyl, isoquinolinyl, imidazolyl, indolyl, indolinyl, isoindolyl, isothiadiazolyl, isoxazolyl, piperidinyl, pyrrazolyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, 1,2,4-30 triazolyl, 1,2,6-triazolyl, tetrazolyl,

Bi

thiadiazolyl, thiazolyl, oxazolyl, pyrazinyl, and pyrimidinyl;

 $R^7$  is H;

5

R<sup>12</sup> is selected from H, methyl, ethyl, and propyl;

alternatively,  $R^3$  and  $R^{12}$  join to form a  $C_{3-6}$  cycloalkyl substituted with 0-2  $R^{3g}$ , a  $C_{5-6}$  lactam substituted with 0-2  $R^{3g}$ , or a  $C_{5-6}$  lactane substituted with 0-2  $R^{3g}$ .

7. (CURRENTLY AMENDED) The compound of claim 6, wherein:

15

- R<sup>1</sup> is selected from phenyl substituted with 0-3 R<sup>4</sup> and
  a 5-10 membered heteroaryl system substituted with
  0-3 R<sup>4</sup>, wherein the heteroaryl is selected from
  benzimidazolyl, benzofuranyl, benzothiofuranyl,
  benzoxazolyl, benzthiazolyl, benztriazolyl,
  benztetrazolyl, benzisoxazolyl, benzisothiazolyl,
  benzimidazalonyl, cinnolinyl, furanyl, imidazolyl,
  indazolyl, indolyl, isoquinolinyl isothiazolyl,
  isoxazolyl, oxazolyl, pyrazinyl, pyrazolyl,
  pyridazinyl, pyridinyl, pyrimidinyl, pyrrolyl,
  quinazolinyl, quinolinyl, thiazolyl, thienyl, and
  tetrazolyl;
- $R^2$  is selected from phenyl substituted with 0-3  $R^5$  and a 5-10-membered heteroaryl system containing 1-4 heteroatoms substituted with 0-3  $R^5$ , wherein the

BI

5

10

heteroaryl system is selected from
benzimidazolyl, benzofuranyl, benzothiofuranyl,
benzoxazolyl, benzthiazolyl, benzitriazolyl,
benztetrazolyl, benzisoxazolyl, benzisothiazolyl,
benzimidazalonyl, cinnolinyl, furanyl, imidazolyl,
indazolyl, indolyl, isoquinolinyl isothiazolyl,
isoxazolyl, oxazolyl, pyrazinyl, pyrazolyl,
pyridazinyl, pyridinyl, pyrimidinyl, pyrrolyl,
quinazolinyl, quinolinyl, thiazolyl, thienyl, and
tetrazolyl.

- 8. (CURRENTLY AMENDED) The compound of claim 7, wherein:
- 15 X is  $CHR^{16}R^{17}$ ;
- R<sup>4</sup>, at each occurrence, is selected from C<sub>1-8</sub> alkyl,

  C<sub>2-8</sub> alkenyl, C<sub>2-8</sub> alkynyl, (CR'R')<sub>r</sub>C<sub>3-6</sub>

  cycloalkyl, Cl, Br, I, F, NO<sub>2</sub>, CN, (CR'R')<sub>r</sub>NR<sup>4a</sup>R<sup>4a</sup>,

  (CR'R')<sub>r</sub>OH, (CR'R')<sub>r</sub>OR<sup>4d</sup>, (CR'R')<sub>r</sub>SH, (CR'R')<sub>r</sub>SR<sup>4d</sup>,

  (CR'R')<sub>r</sub>C(O)OH, (CR'R')<sub>r</sub>C(O)R<sup>4b</sup>,

  (CR'R')<sub>r</sub>C(O)NR<sup>4a</sup>R<sup>4a</sup>, (CR'R')<sub>r</sub>NR<sup>4f</sup>C(O)R<sup>4b</sup>,

  (CR'R')<sub>r</sub>C(O)OR<sup>4d</sup>, (CR'R')<sub>r</sub>OC(O)R<sup>4b</sup>,

  (CR'R')<sub>r</sub>NR<sup>4f</sup>C(O)OR<sup>4d</sup>, (CR'R')<sub>r</sub>OC(O)NR<sup>4a</sup>R<sup>4a</sup>,

  (CR'R')<sub>r</sub>NR<sup>4a</sup>C(O)NR<sup>4a</sup>R<sup>4a</sup>, (CR'R')<sub>r</sub>S(O)<sub>p</sub>R<sup>4b</sup>,

  (CR'R')<sub>r</sub>S(O)<sub>2</sub>NR<sup>4a</sup>R<sup>4a</sup>, (CR'R')<sub>r</sub>NR<sup>4f</sup>S(O)<sub>2</sub>R<sup>4b</sup>,

  (CR'R')<sub>r</sub>NR<sup>4f</sup>S(O)<sub>2</sub>NR<sup>4a</sup>R<sup>4a</sup>, C<sub>1-6</sub> haloalkyl, and

  (CR'R')<sub>r</sub>phenyl substituted with 0-3 R<sup>4e</sup>;

B

. alternatively, two  $R^4$  on adjacent atoms join to form  $-O-(CH_2)-O-;$ 

 $R^{4a}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, i-propyl, butyl, s-butyl, i-butyl, t-butyl, pentyl, hexyl, allyl, propargyl, and a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue selected from cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;

10

R4b, at each occurrence, is selected from methyl, ethyl, propyl, i-propyl, butyl, s-butyl, i-butyl, t-butyl, pentyl, hexyl, allyl, propargyl, a  $(CH_2)_r-C_{3-6}$  carbocyclic residue substituted with 0-3  $R^{4e}$ , wherein the carbocyclic residue is 15 selected from cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl, and a  $(CH_2)_r$ -5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-220  $R^{4e}$ , wherein the heterocyclic system is selected from pyridinyl, thiophenyl, furanyl, indazolyl, benzothiazolyl, benzimidazolyl, benzothiophenyl, benzofuranyl, benzoxazolyl, benzisoxazolyl, quinolinyl, isoquinolinyl, imidazolyl, indolyl, indolinyl, isoindolyl, isothiadiazolyl, 25 isoxazolyl, piperidinyl, pyrrazolyl, 1,2,4triazolyl, 1,2,3-triazolyl, tetrazolyl, thiadiazolyl, thiazolyl, oxazolyl, pyrazinyl, and pyrimidinyl;

BI

5

 $R^{4d}$ , at each occurrence, is selected from H, methyl,  $CF_3$ , ethyl, propyl, i-propyl, butyl, s-butyl, ibutyl, t-butyl, pentyl, hexyl, allyl, propargyl, and a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue selected from cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;

 $R^{4e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{4f}R^{4f}$ , and  $(CH_2)_rphenyl$ ;

R<sup>4f</sup>, at each occurrence, is selected from H, methyl, ethyl, propyl, i-propyl, butyl, and cyclopropyl, cyclobutyl, and phenyl;

R<sup>5</sup>, at each occurrence, is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s- butyl, t-20 butyl, pentyl, hexyl,  $(CR'R')_rC_{3-6}$  cycloalkyl, Cl, Br, I, F,  $NO_2$ , CN,  $(CR'R')_rNR^{5a}R^{5a}$ ,  $(CR'R')_rOH$ ,  $(CR'R')_rOR^{5d}$ ,  $(CR'R')_rSH$ ,  $(CR'R')_rC(O)H$ ,  $(CR'R')_rSR^{5d}$ ,  $(CR'R')_rC(O)OH$ ,  $(CR'R')_rC(O)R^{5b}$ ,  $(CR'R')_{r}C(O)NR^{5a}R^{5a}$ ,  $(CR'R')_{r}NR^{5f}C(O)R^{5b}$ , 25  $(CR'R')_{r}C(0)OR^{5d}$ ,  $(CR'R')_{r}OC(0)R^{5b}$ ,  $(CR'R')_rNR^{5f}C(O)OR^{5d}$ ,  $(CR'R')_rOC(O)NR^{5a}R^{5a}$ ,  $(CR'R')_rNR^{5a}C(O)NR^{5a}R^{5a}$ ,  $(CR'R')_rNR^{5a}C(O)NR^{5a}R^{5a}$ ,  $(CR'R')_rNR^{5a}C(O)O(CR'R')_rR^{5d}$ (CR'R') NR7aC(O) NR7aR7a7  $\frac{(CR'R')_{*}NR^{7a}C(0)O(CR'R')_{*}R^{7d}}{(CR'R')_{*}R^{7d}}$ ,  $\frac{(CR'R')_{*}S(0)_{0}R^{5b}}{(CR'R')_{*}R^{7d}}$ 30

 $(CR'R')_rS(0)_2NR^{5a}R^{5a}$ ,  $(CR'R'')_rNR^{5f}S(0)_2R^{5b}$ ,  $C_{1-6}$  haloalkyl, and  $(CHR')_r$ phenyl substituted with 0-3  $R^{5e}$ :



- 5 alternatively, two  $R^5$  on adjacent atoms join to form  $-O-(CH_2)-O-;$
- $R^{5a}$ , at each occurrence, is independently selected from H, methyl, ethyl, propyl, i-propyl, butyl, s-butyl, i-butyl, t-butyl, pentyl, hexyl, allyl, propargyl, and a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue substituted with 0-1  $R^{5e}$ , wherein the carbocyclic residue is selected from cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, phenyl and naphthyl;

R<sup>5b</sup>, at each occurrence, is selected from methyl, ethyl, propyl, i-propyl, butyl, s-butyl, i-butyl, t-butyl, pentyl, hexyl, allyl, propargyl, a (CH<sub>2</sub>)<sub>r</sub>-C<sub>3-6</sub> carbocyclic residue selected from cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, and phenyl; and a (CH<sub>2</sub>)<sub>r</sub>-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, wherein the heterocyclic system is selected from pyridinyl, thiophenyl, furanyl, indazolyl, azetidinyl, benzothiazolyl,

benzimidazolyl, benzothiophenyl, benzofuranyl, benzoxazolyl, benzisoxazolyl, quinolinyl, isoquinolinyl, imidazolyl, indolyl, indolinyl, isoindolyl, isothiadiazolyl, isoxazolyl, morphlinyl, piperidinyl, pyrrolyl, 2,5-

morphlinyl, piperidinyl, pyrrolyl, 2,5-dihydropyrrolyl, pyrrazolyl, 1,2,4-triazolyl,

R1

1,2,3-triazolyl, tetrazolyl, thiadiazolyl, thiazolyl, oxazolyl, pyrazinyl, and pyrimidinyl;

 $R^{5d}$ , at each occurrence, is selected from H, methyl,  $CF_3$ , ethyl, propyl, i-propyl, butyl, s-butyl, i-butyl, t-butyl, pentyl, hexyl, allyl, propargyl, and a  $(CH_2)_r$ - $C_{3-6}$  carbocyclic residue selected from cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;

10

5

- $R^{5e}$ , at each occurrence, is selected from  $C_{1-6}$  alkyl,  $C_{2-8}$  alkenyl,  $C_{2-8}$  alkynyl,  $(CH_2)_rC_{3-6}$  cycloalkyl, Cl, F, Br, I, CN,  $NO_2$ ,  $(CF_2)_rCF_3$ ,  $(CH_2)_rOC_{1-5}$  alkyl, OH, SH,  $(CH_2)_rSC_{1-5}$  alkyl,  $(CH_2)_rNR^{5f}R^{5f}$ ,  $(CH_2)_rNR^{4f}R^{4f}$ , and  $(CH_2)_r$ phenyl; and
- R<sup>5f</sup>, at each occurrence, is selected from H, methyl, ethyl, propyl, i-propyl, butyl, and cyclopropyl, cyclobutyl, and phenyl.

20

15

- 9. (ORIGINAL) The compound of claim 8, wherein:
- R<sup>5</sup> is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s-butyl, pentyl, hexyl, CF<sub>3</sub>,

  CF<sub>2</sub>CF<sub>3</sub>, CF<sub>2</sub>H, OCF<sub>3</sub>, Cl, Br, I, F, SCF<sub>3</sub>, NR<sup>5a</sup>R<sup>5a</sup>,

  NHC(O)OR<sup>5a</sup>, NHC(O)R<sup>5b</sup>, and NHC(O)NHR<sup>5a</sup>; and

 $R^{12}$  is selected from H and methyl.

30 10. (CURRENTLY AMENDED) A compound of claim 9, wherein:

31

Z is -C(0)-;

X is  $-CHR^{16}NR^{17}-$ ;

5

R<sup>1</sup> is selected from phenyl substituted with 0-3 R<sup>4</sup>, and a 5-10 membered heteroaryl system substituted with 0-2 R<sup>4</sup>, wherein the heteroaryl is selected from indolyl, and pyridyl;

10

15

 $R^2$  is phenyl substituted with 0-2  $R^5$ ;

 $R^3$  is selected from  $(CRR)_qOH$ ,  $(CRR)_qOR^{3d}$ ,  $(CH_2)_rC(O)OH$ ,  $(CH_2)_rC(O)NR^{3a}R^{3a}$ ,  $(CHR)_rC(O)NR^{3a}OR^{3d}$ ,  $(CH_2)_rC(O)R^{3b}$ ,  $(CH_2)_rC(O)OR^{3d}$ , and  $(CH_2)_rDenyl$ ;

alternatively, R<sup>3</sup> and R<sup>12</sup> join to form cyclopropyl, cyclopentyl or cyclohexyl;

20 R<sup>3a</sup> is selected from H, methyl, ethyl, propyl, ipropyl, butyl, i-butyl, s-butyl, t-butyl, allyl,
CH<sub>2</sub>CF<sub>3</sub>, C(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>2</sub>OH, cyclopropyl, 1methylcyclopropyl, cyclobutyl, cyclopentyl,
cyclohexyl, phenyl, and benzyl;

25

R<sup>3b</sup> is selected from pyrrolidinyl, pyrrolid-3-enyl, and morpholinyl;

R<sup>3d</sup> is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl and benzyl;

 $\mathcal{B}'$ 

```
R is selected from H, methyl, ethyl, propyl, i-propyl,
butyl, i-butyl, s-butyl, pentyl, neopentyl, phenyl
and benzyl;
```

- 5 R<sup>4</sup> is selected from methyl, ethyl, propyl, i-propyl, butyl, ethylene, OCH<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, Cl, F, Br, CN;
  - alternatively, two  $R^4$  join to form  $-O-(CH_2)-O-;$

10
R<sup>6</sup> is selected from H, methyl, ethyl, propyl, i-propyl, butyl, C(O)OCH<sub>3</sub>, C(O)NHCH<sub>2</sub>CH<sub>3</sub>;

 $R^7$ ,  $R^9$ , and  $R^{11}$  are H;

15

 $R^8$  is H;

 ${\tt R}^{10}$  is selected from H and methyl;

- 20  $R^{16}$  is selected from H and methyl;
  - $R^{17}$  is selected from H and methyl;
  - m is 0 or 1;

25

l is 0 or 1

r is 0 or 1; and

30 q is 1.

BI

. 11. (WITHDRAWN) The compound of claim 1, wherein

 $R^3$  is H; and

- 5  $R^6$ , is selected from  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl,  $(CRR)_qOH$ ,  $(CRR)_qSH$ ,  $(CRR)_qOR^{6d}$ ,  $(CRR)_qS(0)_pR^{6d}$ ,  $(CRR)_rC(0)R^{6b}$ ,  $(CRR)_rNR^{6a}R^{6a}$ ,  $(CRR)_rC(0)NR^{6a}R^{6a}$ ,  $(CRR)_rC(0)NR^{6a}OR^{6d}$ ,  $(CRR)_sO_2NR^{6a}R^{6a}$ ,  $(CRR)_rC(0)OR^{6d}$ , a  $(CRR)_r-C_{3-10}$  carbocyclic residue substituted with 0-5  $R^{6e}$ , and a  $(CRR)_r-5-10$  membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3  $R^{6e}$ .
- 15. 12. (WITHDRAWN) The compound of claim 11, wherein  $R^{14} \text{ and } R^{14a} \text{ are H;}$   $R^{15} \text{ is H;}$

20

n is 1;

R<sup>16</sup> is selected from H, C<sub>1-4</sub> alkyl substituted with 0-1
R<sup>16a</sup>, wherein the alkyl is selected from methyl,
ethyl, propyl, i-propyl, butyl, i-butyl, and sbutyl, and C<sub>3-4</sub> cycloalkyl substituted with 0-3
R<sup>16a</sup> wherein the cycloalkyl is selected from
cyclopropyl and cyclobutyl;

BI

15

.  $R^{16a}$  is selected from methyl, ethyl, propyl, i-propyl, -OH, -SH, -NR<sup>16c</sup>R<sup>16c</sup>, -C(O)NR<sup>16c</sup>R<sup>16c</sup>, and -NHC(O)R<sup>16c</sup>;

5 R<sup>17</sup> is selected from H, methyl, ethyl, propyl, and i-propyl;

 ${\tt R}^9$  and  ${\tt R}^{11}$  are H; and

- 10  $R^8$  and  $R^{10}$  are independently selected from H,  $C_{1-6}$  alkyl,  $C_{2-6}$  alkenyl,  $C_{2-6}$  alkynyl, a  $(CH_2)_r$ - $C_{3-10}$  carbocyclic residue wherein the carbocyclic residue is selected from cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, phenyl and naphthyl.
- 13. (WITHDRAWN) The compound of claim 12, wherein X is  $CHR^{16}R^{17}$ ;
- 20  $R^5$  is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s-butyl, pentyl, hexyl,  $CF_3$ ,  $CF_2CF_3$ ,  $CF_2H$ ,  $OCF_3$ , Cl, Br, I, F,  $SCF_3$ ,  $NR^{5a}R^{5a}$ ,  $NHC(O)OR^{5a}$ ,  $NHC(O)R^{5b}$ , and  $NHC(O)NHR^{5a}$ ; and
- 25  $R^{12}$  is selected from H and methyl;

Z is -C(0)-;

 $R^1$  is selected from phenyl substituted with 0-3  $R^4$ , and a 5-10 membered heteroaryl system substituted with



0-2  $R^4$ , wherein the heteroaryl is selected from indolyl, and pyridyl;

 $R^2$  is phenyl substituted with 0-2  $R^5$ ;

- $R^3$  is selected from  $(CRR)_qOH$ ,  $(CRR)_qOR^{3d}$ ,  $(CH_2)_rC(O)OH$ ,  $(CH_2)_rC(O)NR^{3a}R^{3a}$ ,  $(CHR)_rC(O)NR^{3a}OR^{3d}$ ,  $(CH_2)_rC(O)R^{3b}$ ,  $(CH_2)_rC(O)OR^{3d}$ , and  $(CH_2)_rDHenyl$ ;
- 10 alternatively, R<sup>3</sup> and R<sup>12</sup> join to form cyclopropyl, cyclopentyl or cyclohexyl;
- R<sup>3a</sup> is selected from H, methyl, ethyl, propyl, ipropyl, butyl, i-butyl, s-butyl, t-butyl, allyl, CH<sub>2</sub>CF<sub>3</sub>, C(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>2</sub>OH, cyclopropyl, 1methylcyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, phenyl, and benzyl;
- R<sup>3b</sup> is selected from pyrrolidinyl, pyrrolid-3-enyl, and morpholinyl;
  - R<sup>3d</sup> is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl and benzyl;
- 25 R is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s-butyl, pentyl, neopentyl, phenyl and benzyl;
- R<sup>4</sup> is selected from methyl, ethyl, propyl, i-propyl, butyl, ethylene, OCH<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, Cl, F, Br, CN;

```
BI
```

```
alternatively, two R^4 join to form -O-(CH_2)-O-;
```

- R<sup>6</sup> is selected from H, methyl, ethyl, propyl, i-propyl, butyl, C(O)OCH<sub>3</sub>, C(O)NHCH<sub>2</sub>CH<sub>3</sub>;
  - $R^7$ ,  $R^9$ , and  $R^{11}$  are H;
  - $R^8$  is H;

10

- $R^{10}$  is selected from H and methyl;
- R<sup>16</sup> is selected from H and methyl;
- 15  $R^{17}$  is selected from H and methyl;
  - m is 0 or 1;
  - l is 0 or 1

- r is 0 or 1; and
- q is 1.
- 25 14. (CURRENTLY AMENDED) The compound of claim 1, wherein the compound is selected from:
  - Methyl (2S)-3-[[(2,4-dimethylphenyl)methyl]amino]-2- [[[[3-
- 30 (trifluoromethyl)benzoyl]amino]acetyl]amino]propanoate;



```
Methyl (2R)-3-[[(2,4-dimethylphenyl)methyl]amino]-2-
[[[[3- .
    (trifluoromethyl)benzoyl]amino]acetyl]amino]-
    propanoate;
```

- 15 (2S)-3-[[(2,4-dimethylphenyl)methyl]amino]-2-[[[[3-(trifluoromethyl)benzoyl]amino]acetyl]amino]-propanamide;
- - (2S)-N-Ethyl-3-[[(2,4-dimethylphenyl)methyl]amino]-2[[[[3-
- 25 (trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;
  - (2S)-N-Benzyl-3-[[(2,4-dimethylphenyl)methyl]amino]-2[[[3-
- 30 (trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;

```
(2S) -N-Isopropyl-3-[[(2,4-dimethylphenyl)methyl]amino]-
          2-[[[[3-
          (trifluoromethyl)benzoyl]amino]acetyl]amino]-
          propanamide;
 5
     (2S) - N - tert - Butyl - 3 - [[(2, 4 -
          dimethylphenyl)methyl]amino]-2-[[[[3-
          (trifluoromethyl)benzoyl]amino]acetyl]amino]-
          propanamide;
10
     (2S) - N - Cyclopropyl - 3 - [[(2, 4 -
          dimethylphenyl)methyl]amino]-2-[[[[3-
          (trifluoromethyl)benzoyl]amino]acetyl]amino]-
          propanamide;
15
     (2S) - N - Cyclobutyl - 3 - [[(2, 4 -
          dimethylphenyl)methyl]amino]-2-[[[[3-
          (trifluoromethyl)benzoyl]amino]acetyl]amino]-
          propanamide;
20
     (2S) -N-Phenyl-3-[[(2,4-dimethylphenyl)methyl]amino]-2-
          [[[3-
          (trifluoromethyl)benzoyl]amino]acetyl]amino]-
          propanamide;
25
     (2S) - N, N - Dimethyl - 3 - [(2, 4 -
          dimethylphenyl)methyl]amino]-2-[[[[3-
          (trifluoromethyl)benzoyl]amino]acetyl]amino]-
          propanamide;
30
```

dimethylphenyl)methyl]amino]-2-[[[[3-

(2S) - N - Methyl, N - methoxy - 3 - [ (2, 4 - 1)]



10

15

20

```
(trifluoromethyl)benzoyl]amino]acetyl]amino]-
propanamide;
```

- Methyl (2S)-3-[[(4-chlorophenyl)methyl]amino]-2-[[[[3(trifluoromethyl)benzoyl]amino]acetyl]amino]propanoate;
  - - (2S) -N-Ethyl-3-[[(4-chlorophenyl)methyl]amino]-2-[[[[3-(trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;
- Methyl (2S)-3-[[(1S/R)-1-(4-chlorophenyl)ethyl]amino]2-[[[[3 (trifluoromethyl)benzoyl]amino]acetyl]amino] propanoate;
- 30 \(\(\frac{(2S)-3-[(1H-indol-3-ylmethyl)amino]-2-[[[[3-\)(trifluoromethyl)benzoyl]amino]acetyl]amino]-\)
  \[
  \text{propanamide;}\]



```
Methyl (2S) -3-[(1,3-benzodioxol-5-ylmethyl) amino]-2-
     [[[3-
     (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanoate;
```

```
Methyl (2S)-3-[[(4-bromophenyl)methyl]amino]-2-[[[[3-
     (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanoate;
```

10

15

20

N-[2-[(1S)-2-[(2,4-dimethylphenyl)methyl]amino]-1-25 (hydroxymethyl) ethyl]amino]-2-oxoethyl]-3-(trifluoromethyl)benzamide;

N-[2-[(1R)-2-[(2,4-dimethylphenyl)methyl]amino]-1-(hydroxymethyl) ethyl]amino]-2-oxoethyl]-3-30 (trifluoromethyl)benzamide;



```
N-[2-[[(1S, 2S/R)-1-[[[(2,4-
                              dimethylphenyl)methyl]amino]methyl]-2-
                              hydroxypropyl]amino]-2-oxoethyl]-3-
                               (trifluoromethyl)benzamide;
   5
               tert-Butyl (3R)-4-[[(2,4-dimethylphenyl)methyl]amino]-
                               3-[[[3-
                               (trifluoromethyl)benzoyl]amino]acetyl]amino]-
                              butanoate;
10
              N-[2-[[(1R)-2-[[(2,4-dimethylphenyl)methyl]amino]-1-
                               (phenylmethyl) ethyl]amino]-2-oxoethyl]-3-
                               (trifluoromethyl)benzamide;
15
               (2S) - N - tert - Butyl - 2 - [[[[2 - [[(1, 1 -
                              dimethylethoxy)carbonyl]amino]-5-
                               (trifluoromethyl)benzoyl]amino]acetyl]amino]-3-
                               [[(2,4-dimethylphenyl)methyl]amino]-propanamide;
20
               (2S) - N - tert - Butyl - 2 - [[[[2-amino-5-
                               (trifluoromethyl)benzoyl]amino]acetyl]amino]-3-
                               [[(2,4-dimethylphenyl)methyl]amino]-propanamide;
               (2S) - N - tert - Butyl - 3 - [[(4 - bromo, 2 - brown, 2 - brown
25
                              methylphenyl) methyl] amino] -2-[[[[2-[[(1,1-
                              dimethylethoxy)carbonyl]amino]-5-
                               (trifluoromethyl)benzoyl]amino]acetyl]amino]-
                              propanamide;
30
              (2S) - N - tert - Butyl - 2 - [[[[2-amino-5-
                               (trifluoromethyl)benzoyl]amino]acetyl]amino]-3-
```



5

[[(4-bromo, 2-methylphenyl)methyl]amino]propanamide;

N-[2-[[(1S, 2S)-1-[[[(2,4-dimethyl]nethyl]amino]methyl]-2-hydroxy-3-dimethylphenyl)methyl]amino]methyl]-2-hydroxy-3-

(methyl)butyl]amino]-2-oxoethyl]-3-

(trifluoromethyl)benzamide;

N-[2-[[(1S, 2R)-1-[[[(2,4-

dimethylphenyl)methyl]amino]methyl]-2-hydroxy-3-

(methyl)butyl]amino]-2-oxoethyl]-3-

(trifluoromethyl)benzamide;

N-[2-[[(1S, 2S)-1-[[[(2,4-

dimethylphenyl)methyl]amino]methyl]-2-hydroxy-2-

(phenyl)ethyl]amino]-2-oxoethyl]-3-

(trifluoromethyl)benzamide;

N-[2-[[(1S, 2R)-1-[[[(2,4-

20 dimethylphenyl)methyl]amino]methyl]-2-hydroxy-2-

(phenyl)ethyl]amino]-2-oxoethyl]-3-

(trifluoromethyl)benzamide;

N-[2-[[(1S, 2S)-1-[[[(2,4-

25 dimethylphenyl)methyl]amino]methyl]-2-hydroxy-3-

(phenyl)propyl]amino]-2-oxoethyl]-3-

(trifluoromethyl) benzamide;

N-[2-[[(1S, 2R)-1-[[[(2,4-

30 dimethylphenyl)methyl]amino]methyl]-2-hydroxy-3-

(phenyl)propyl]amino]-2-oxoethyl]-3-

(trifluoromethyl)benzamide;



5

10

15

20

25

(methyl)pentyl]amino]-2-oxoethyl]-3-

(trifluoromethyl)benzamide;



5





5

10

15 (trifluoromethyl)benzamide;

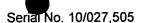
[[(isopropylamino) carbonyl]amino]-5-(trifluoromethyl)benzamide; N-[2-[[(1s, 2s)-1-[[[(2,4dimethylphenyl)methyl]amino]methyl]-2-5 (hydroxy)pentyl]amino]-2-oxoethyl]-2-[(1pyrrolidinylcarbonyl)amino]-5-(trifluoromethyl)benzamide; N-[2-[(1S, 2S)-1-[((2,4-10 dimethylphenyl)methyl]amino]methyl]-2-(hydroxy)pentyl]amino]-2-oxoethyl]-2-[(1azetidinylcarbonyl)amino]-5-(trifluoromethyl)benzamide; 15 N-[2-[[(1S, 2S)-1-[[(2,4dimethylphenyl)methyl]amino]methyl]-2-(hydroxy)pentyl]amino]-2-oxoethyl]-2-[[(methylamino)carbonyl]amino]-5-20 (trifluoromethyl)benzamide; N-[2-[[(1S, 2R)-1-[[[(2,4dimethylphenyl)methyl]amino]methyl]-2-(hydroxy)pentyl]amino]-2-oxoethyl]-2-[[(4-25 mopholinylcarbonyl) ]amino]-5-(trifluoromethyl)benzamide; N-[2-[[(1S, 2R)-1-[[(2,4dimethylphenyl)methyl]amino]methyl]-2-30 (hydroxy)pentyl]amino]-2-oxoethyl]-2-[[(1piperazinylcarbonyl)]amino]-5-

(trifluoromethyl)benzamide;



```
N-[2-[[(1S, 2S)-1-[[[(4-
         ethylphenyl)methyl]amino]methyl]-2-
          (hydroxy) pentyl] amino] -2-oxoethyl] -2-[[(1,1-
 5
         dimethylethoxy)carbonyl]amino]-5-
          (trifluoromethyl)benzamide;
    N-[2-[[(1S, 2S)-1-[[(4-
         ethylphenyl)methyl]amino]methyl]-2-
          (hydroxy)pentyl]amino]-2-oxoethyl]-2-amino-5-
10
          (trifluoromethyl)benzamide;
    N-[2-[[(1S, 2S)-1-[[[(4-
         ethylphenyl)methyl]amino]methyl]-2-
15
          (hydroxy)pentyl]amino]-2-oxoethyl]-2-
         [[(isopropylamino) carbonyl]amino]-5-
          (trifluoromethyl) benzamide;
    N-[2-[(1S, 2S)-1-[[(4-
20
         ethylphenyl)methyl]amino]methyl]-2-
          (hydroxy)pentyl]amino]-2-oxoethyl]-2-[(4-
         morpholinylcarbonyl)amino]-5-
         (trifluoromethyl) benzamide;
25 N-[2-[[(1S, 2S)-1-[[[(4-dimethylamino-2-
         methylphenyl)methyl]amino]methyl]-2-
         (hydroxy) pentyl] amino] -2-oxoethyl] -2-[[(1,1-
         dimethylethoxy)carbonyl]amino]-5-
         (trifluoromethyl)benzamide;
30
    N-[2-[[(1S, 2S)-1-[[[(4-dimethylamino-2-
         methylphenyl)methyl]amino]methyl]-2-
```

5



# AMENDMENTS TO THE CLAIMS

(hydroxy)pentyl]amino]-2-oxoethyl]-2-amino-5-(trifluoromethyl)benzamide;

N-[2-[[(1s, 2s)-1-[[[(2,4-

dimethylphenyl)methyl]amino]methyl]-2(hydroxy)pentyl]amino]-2-oxoethyl]-2-(tertbutyl)amino-5-(trifluoromethyl)benzamide;

N-[2-[[(1S, 2S)-1-[[[(2,4-

N-[2-[[(1s, 2s)-1-[[(2,4-

N-[2-[[(1S, 2S)-1-[[[(2,4-

dimethylphenyl)methyl]amino]methyl]-2(methoxy)pentyl]amino]-2-oxoethyl]-2-[[(1,1dimethylethoxy)carbonyl]amino]-5(trifluoromethyl)benzamide;

25 N-[2-[[(1s, 2s)-1-[[[(2,4-

dimethylphenyl)methyl]amino]methyl]-2(methoxy)pentyl]amino]-2-oxoethyl]-2-amino-5(trifluoromethyl)benzamide;

30 N-[2-[[(S)-1-[[(2,4-

dimethylphenyl)methyl]amino]methyl]-2-hydroxy-2(methyl)propyl]amino]-2-oxoethyl]-2-[[(1,1-



25

30

dimethylethoxy)carbonyl]amino]-5(trifluoromethyl)benzamide;

N-[2-[[(S)-1-[[(2,4dimethylphenyl)methyl]amino]methyl]-2-hydroxy-2(methyl)propyl]amino]-2-oxoethyl]-2-amino-5(trifluoromethyl)benzamide;

 $N-\{2-[[(S)-2-[[(2,4-dimethylphenyl)methyl]amino]-1-(hydroxycyclopentyl)ethyl]amino]-2-oxoethyl]-2-$ 



```
[[(1,1-dimethylethoxy)carbonyl]amino]-5-
(trifluoromethyl)benzamide;
```

- (2S)-N-tert-Butyl-2-[[[[2-amino-530 (trifluoromethoxy)benzoyl]amino]acetyl]amino]-3[[(2,4-dimethylphenyl)methyl]amino]-propanamide;



- 5 (2S)-N-tert-Butyl-3-[[(2,4-dimethylphenyl)methyl]amino]- 2-[[[[2-ethylamino-5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-propanamide;

- (2S)-N-tert-Butyl-3-[[(2,430 dimethylphenyl)methyl]amino]- 2-[[[[2isopropylamino-5-

Bi

```
(trifluoromethyl)benzoyl]amino]acetyl]amino]-
propanamide;
```

- (2S)-N-tert-Butyl-3-[[(2,4
  dimethylphenyl)methyl]amino]- 2-[[[[2-(tertbutyl)amino-5(trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;



- 5 (2S)-N-tert-Butyl-2-[[[[2-(para-chloro)benzylamino-5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-3-[[(2,4-dimethylphenyl)methyl]amino]-propanamide;
- (2S)-N-tert-Butyl-2-[[[[2-[(beta-napthyl)methyl]amino
  5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-3[[(2,4-dimethylphenyl)methyl]amino]-propanamide;
- - (2S)-N-tert-Butyl-2-[[[[2-(para-methyl)benzylamino-5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-3-[[(2,4-dimethylphenyl)methyl]amino]-propanamide;

(2S)-N-tert-Butyl-2-[[[[2-(ortho-methyl)benzylamino-5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-3[[(2,4-dimethylphenyl)methyl]amino]-propanamide;

30



- 5 (2S)-N-tert-Butyl-2-[[[[3-benzylamino-5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-3[[(2,4-dimethylphenyl)methyl]amino]-propanamide;
- (2S)-N-tert-Butyl-2-[[[[3-methylamino-5(trifluoromethyl)benzoyl]amino]acetyl]amino]-3[[(2,4-dimethylphenyl)methyl]amino]-propanamide;



10

(2S)-N-tert-Butyl-2-[[[[3-(ethoxycarbonyl)amino-5-(trifluoromethyl)benzoyl]amino]acetyl]amino]-3[[(2,4-dimethylphenyl)methyl]amino]-propanamide;

(2S)-2-[[[[2-amino-5 (trifluoromethyl)benzoyl]amino]acetyl]amino]-3 [[(2-methyl-4-bromophenyl)methyl]amino] propanamide;

- 30 (2S)-N-tert-Butyl-3-[[(4-methoxyphenyl)methyl]amino]-2- [[[[3-



(trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;

- (2S) -N-tert-Butyl-3-[[(2-methoxypyridin-510 yl)methyl]amino]-2-[[[[3(trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;



```
(2S) - N - tert - Butyl - 3 - [[(4 - ethyl - 2 - eth
                                  methylphenyl)methyl]amino]-2-[[[[3-
                                    (trifluoromethyl)benzoyl]amino]acetyl]amino]-
   5
                                  propanamide;
                 (2S) -N-tert-Butyl-3-[[(4-isopropylphenyl)methyl]amino]-
                                  2-[[[[3-
                                    (trifluoromethyl)benzoyl]amino]acetyl]amino]-
10
                                  propanamide;
                 (2S)-N-tert-Butyl-3-[[(4-butylphenyl)methyl]amino]-2-
                                    [[[[3-
                                    (trifluoromethyl)benzoyl]amino]acetyl]amino]-
15
                                  propanamide;
                 (2S) -N-tert-Butyl-3-[[(4-
                                  dimethylaminophenyl)methyl]amino]-2-[[[[3-
                                    (trifluoromethyl)benzoyl]amino]acetyl]amino]-
20
                                  propanamide;
                 (2S) -N-tert-Butyl-3-[[(4-dimethylamino-2-
                                  methylphenyl)methyl]amino]-2-[[[[3-
                                    (trifluoromethyl)benzoyl]amino]acetyl]amino]-
25
                                  propanamide;
                 (2S) - N - tert - Butyl - 3 - [[(4 - 
                                  methylthiophenyl) methyl] amino] -2-[[[[3-
                                   (trifluoromethyl)benzoyl]amino]acetyl]amino]-
30
                                  propanamide;
```



5

10

15

20

25

30

[[[3-

```
(2S) - N - tert - Butyl - 3 - [[(4 - 1)^2]]
     methylsulfonylphenyl)methyl]amino]-2-[[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
 (2S) - N - tert - Butyl - 3 - [[(4 -
     trifluoromethoxyphenyl)methyl]amino]-2-[[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
 (2S) - N - tert - Butyl - 3 - [[(3-amino-4-
     methylphenyl)methyl]amino]-2-[[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
(2S) -N-tert-Butyl-3-[[(indol-3-yl)methyl]amino]-2-
     <del>{{{3-</del>
     (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
 (2S) -N-tert-Butyl-3-[[(2-methylphenyl)methyl]amino]-2-
      [[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
 (2S) -N-tert-Butyl-3-[[(2-ethylphenyl)methyl]amino]-2-
      [[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
      propanamide;
```



(trifluoromethyl)benzoyl]amino]acetyl]amino]propanamide;



5

10

15

20

25

- (2S)-N-( $\beta$ ,  $\beta$ ,  $\beta$ -Trifluoro) ethyl-3-[[(2,4-dimethylphenyl)methyl]amino]-2-[[[[3-(trifluoromethyl)benzoyl]amino]acetyl]amino]-propanamide;
- (2S)-N-Allyl-3-[[(2,4-dimethylphenyl)methyl]amino]-2[[[[3 (trifluoromethyl)benzoyl]amino]acetyl]amino] propanamide;

30 N-[2-[[(2S)-3-[[(2,4-dimethylphenyl)methyl]amino]-1- (morpholinyl)-1-oxopropyl-2-amino]-2-oxoethyl]-3- (trifluoromethyl)benzamide;



5

10

15

20

25

30

propanoate;

```
(2S) - N - I sobuty1 - 3 - [[(2, 4 - dimethylphenyl)methyl]amino] - [(2S) - N - I)
     2-[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
(2S) -N-sec-Butyl-3-[[(2,4-dimethylphenyl)methyl]amino]-
     2-[[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
(2S) - N - tert - Butyl - 4 - [[(2, 4 -
      dimethylphenyl)methyl]amino]-3-[[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
      butanamide;
(2S, 3R) - N - \text{Ethyl} - 3 - [[(2, 4 - \text{dimethylphenyl}) \text{methyl}] \text{ amino}] -
      2-[[[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
      butanamide;
(2S, 3R) - N - \text{Ethyl} - 3 - [(4 - \text{bromophenyl}) \text{ methyl}] \text{ amino}] - 2 -
      [[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
      butanamide;
Methyl (2R)-2-[[(2,4-dimethylphenyl)methyl]amino]-3-
      [[[3-
      (trifluoromethyl)benzoyl]amino]acetyl]amino]-
```



butanoate;

10

- (2S)-4-[[(2,4-dimethylphenyl)methyl]amino]-2-[[[[3(trifluoromethyl)benzoyl]amino]acetyl]amino]butanamide;



10

20

25

```
[[(2,4-dimethylphenyl)methyl]methylamino]-butanamide;
```

- (2S)-N-tert-Butyl-2-[[[[2-amino-5
  (trifluoromethyl)benzoyl]amino]acetyl]amino]-4[[(2,4-dimethylphenyl)methyl]amino]-butanamide;
- - (2S)-N-Ethyl-5-[[(2,4-dimethylphenyl)methyl]amino]-2-[[[[3-



20

25

(trifluoromethyl)benzoyl]amino]acetyl]amino]- '
pentanamide;

```
N-[2-[[(1S, 2S/R)-1-[[[(2,4-
dimethylphenyl)methyl]methylamino]methyl]-2-
hydroxy-3-(methyl)butyl]amino]-2-oxoethyl]-3-
(trifluoromethyl)benzamide;
```

N-[2-[[(1S, 2S)-1-[[[(4ethylphenyl)methyl]methylamino]methyl]-2(hydroxy)pentyl]amino]-2-oxoethyl]-2[[(isopropylamino) carbonyl]amino]-5-

(trifluoromethyl)benzamide;



```
(2S) - N - tert - Butyl - 3 - [[(2, 4 -
     dimethylphenyl)methyl]methylamino]-2-[[[[3-
     (trifluoromethyl)benzoyl]amino]acetyl]amino]-
     propanamide;
```

5

10

20

15

BI

5

no]-2-oxoethyl]-2-amino-5(trifluoromethyl)benzamide; and

- (2S)-N-Ethyl-3-[[(2,4-dimethylphenyl)methyl]amino]-2[[[[2-amino-5(trifluoromethyl)benzoyl]amino]acetyl] amino]-2methyl-propanamide.
- 15. (ORIGINAL) A pharmaceutical composition,
  10 comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of claim
  1.
- 16. (ORIGINAL) A method for modulation of

  15 chemokine or chemokine receptor activity comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.
- 17. (ORIGINAL) A method for modulation of MCP-1, MCP-2, MCP-3 and MCP-4, and MCP-5 activity that is mediated by the CCR2 receptor comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.

25

18. (ORIGINAL) A method for modulation of MCP-1 activity comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.

30

19. (CURRENTLY AMENDED) A method for treating or preventing disorders, comprising administering to a



10

patient in need thereof a therapeutically effective amount of a compound of claims 1, said disorders being selected from osteoarthritis, aneurism, fever, cardiovascular effects, Crohn's disease, congestive heart failure, autoimmune diseases, HIV-infection, HIV-associated dementia, psoriasis, idiopathic pulmonary fibrosis, transplant arteriosclerosis, physically- or chemically-induced brain trauma, inflammatory bowel disease, alveolitis, colitis, systemic lupus erythematosus, nephrotoxic serum nephritis, glomerularnephritis, asthma, multiple sclerosis, artherosclerosis, and rheumatoid arthritis.

- 20. (CURRENTLY AMENDED) The method for treating
  or preventing disorders, of claim 19, wherein said
  disorders being selected from psoriasis, idiopathic
  pulmonary fibrosis, transplant arteriosclerosis,
  physically- or chemically-induced brain trauma,
  inflammatory bowel disease, alveolitis, colitis,
  systemic lupus erythematosus, nephrotoxic serum
  nephritis, glomerularnephritis, asthma, multiple
  sclerosis, artherosclerosis, and rheumatoid arthritis.
- 21. (CURRENTLY AMENDED) The method for treating or preventing disorders, of claim 20, wherein said disorders being selected from alveolitis, colitis, systemic lupus erythematosus, nephrotoxic serum nephritis, glomerularnephritis, asthma, multiple sclerosis, artherosclerosis, and rheumatoid arthritis.

30

22. (CURRENTLY AMENDED) The method for treating or preventing disorders, of claim 21, wherein said



disorders being selected from asthma, multiple sclerosis, artherosclerosis, and rheumatoid arthritis.

- 23. (CURRENTLY AMENDED) A method for treating or

  5 preventing rheumatoid arthritis, comprising
  administering to a patient in need thereof a
  therapeutically effective amount of a compound of claim
  1.
- 24. (CURRENTLY AMENDED) A method for treating or preventing multiple sclerosis, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.
- 25. (CURRENTLY AMENDED) A method for treating or preventing atherosclerosis, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.
- 26. (CURRENTLY AMENDED) A method for treating or preventing asthma, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.
- 27. (CURRENTLY AMENDED) A method for treating or preventing inflammatory diseases, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.

30

28. (ORIGINAL) A method for modulation of CCR2 activity comprising administering to a patient in need

BI

thereof a therapeutically effective amount of a compound of claim 1.

29. (NEW) A method for treating disorders, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claims 10, said disorders being selected from asthma, multiple sclerosis, artherosclerosis, and rheumatoid arthritis.

10

5

30. (NEW) A method for treating rheumatoid arthritis, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 10.

15

31. (NEW) A method for treating multiple sclerosis, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 10.

20

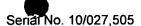
32. (NEW) A method for treating atherosclerosis, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 10.

25

33. (NEW) A method for treating asthma, comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 10.

30

34. (NEW) A method for treating inflammatory diseases, comprising administering to a patient in need





5

thereof a therapeutically effective amount of a compound of claim 10.

35. (NEW) A method for modulation of CCR2 activity comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 10.